

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: James F. Curry et al. Confirmation No: 3996
Serial No: 10/669,046
Filed: 09/23/2003
Examiner: Tae H. Yoon
Art Unit: 1714
Docket No: FDN-2593/DIV
Customer No: 67749
Title: AQUEOUS DISPERSIONS OF LOW-MOLECULAR WEIGHT,
LOW-MELTING AND WATER INSOLUBLE POLYMERS

MAIL STOP APPEAL BRIEF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

**REPLY BRIEF IN RESPONSE TO EXAMINER'S
SUPPLEMENTAL ANSWER DATED 7/23/2007**

Dear Sir:

Pursuant to 37 C.F.R. §§ 41.41, attached herewith is Appellants' Reply Brief submitted in response to Examiner's Supplemental Answer dated July 23, 2007. This response is due by September 23, 2007; accordingly, this Reply Brief is being timely filed.

Appellants' Argument begins on page 2 of this paper.

ARGUMENT

Claims 1-3 and 15 were rejected under 35 U.S.C 103 (a) on Narayanan '131 in view of Carter '254. However, Appellants have demonstrated, by Declaration of Dr. Narayanan, that the presence of the N-octyl pyrrolidone component in the Narayanan single phase, microemulsion composition would materially change the characteristics of Appellants' invention. Particularly, it would change it from being the desired aqueous, homogeneous microdispersion (a two-phase system) wherein the polymer is suspended in the anionic emulsifier, to an undesired microemulsion.

That Declaration clearly establishes that the presence of N-octyl pyrrolidone transfers the aqueous dispersion of the invention (a two-phase system) into a microemulsion (a one-phase system). In this invention, the smaller particle size in the Narayanan '131 single phase system is not desired herein. Rather, a dispersion of copolymer particles of defined size is necessary for a suitable dispersion of the copolymer.

The Examiner stated that Narayanan '131 teaches that a microemulsion is a dispersion having a particle size of 0.01 to 0.1 micron. However, in Appellants' composition the two-phase dispersion of the polymer (in the absence of a co-emulsifier such as N-octyl pyrrolidone) is defined by a much larger particle size of polymer, i.e., <10 microns, preferably <5-6 microns and, most preferably, 0.1-2 microns. In contrast, in Narayanan '131, N-octyl pyrrolidone is present in the composition to transform it into a microemulsion with a polymer particle size in the lower range of 0.01 microns to create a single phase system.

The Examiner also stated Carter discloses that lignin sulfate is a well known anionic emulsifier, and that Narayanan teaches employing an anionic emulsifier. However, the invention herein comprises a combination of named components in defined amounts and physical parameters which are not shown or described in either of the references, singularly or together. The specification herein teaches that many different anionic emulsifiers may be used in the invention combination; however polymeric emulsifiers, e.g., lignin sulfonate, neutralized methyl vinyl ether-maleic acid

half-ester, and polyacrylic acid, are preferred emulsifiers, particularly specified in claims 1-3 and 15 and in the specification's examples, which emulsifiers are not mentioned in the secondary references for use in the composition of this invention.

In light of the above arguments, Appellants respectfully submit that the claims under appeal are believed to define patentable invention over the cited art. Accordingly, reconsideration and early allowance of the claims is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees that may be required or credit any overpayments to Deposit Account No. 07-0650.

Respectfully requested,

September 13, 2007
Date

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